

IN THE CLAIMS:

1-36. (CANCELLED)

37. (CURRENTLY AMENDED) A vascular device for treatment of a vessel with an aneurysm comprising:

a tubular stentless vascular graft having a proximal portion, a distal portion, and an outer surface having a diameter;

a first docking head provided at the distal portion of the graft and consisting essentially of a thin-walled truncated cone having a lumen therethrough wherein the lumen of the first docking head has a diameter that corresponds to the diameter of the outer surface of the graft; and

a second docking head provided at the proximal end of the graft and consisting essentially of a thin-walled truncated cone having a lumen therethrough wherein the lumen of the second docking head has a diameter that corresponds to the diameter of the outer surface of the graft,

wherein each of the first and second docking heads is adapted to be adjusted along and fastened to the graft at a suitable position on the outer surface of the graft prior to insertion into the vessel,

wherein each of the docking heads has a plurality of outwardly pointing barbs are connected to at least one of the docking heads wherein the barbs that are flexible and are inclined towards a longitudinal direction of the graft at a predetermined angle and are connected to a firm portion of the thin-walled truncated cone, and

wherein the barbs are flexible and are inclined towards a longitudinal direction of the graft, and

wherein the distal and proximal portions of the vascular device are capable of being coupled within the vessel distally and proximally, respectively, substantially to healthy portions of the aneurysm in a suture-less and rapid manner.

38. (PREVIOUSLY PRESENTED) The vascular device of claim 37, wherein at least one of the docking heads is fastened to the graft at a suitable position by a fastener selected from the group consisting of fit, glue, sutures, clips, and staples or by everting.

39. (PREVIOUSLY PRESENTED) The vascular device of claim 37, wherein each of the docking heads has an outer diameter to couple the graft to the vessel and an inner lumen that has a diameter that corresponds to an outer diameter of the graft.

40. (PREVIOUSLY PRESENTED) The vascular device of claim 37, a portion of each thin-walled truncated cone is provided with slits causing flexibility to said portion of the thin-walled truncated cone.

41. (PREVIOUSLY PRESENTED) The vascular device of claim 37, wherein each thin-walled truncated cone has a concave, convex, or straight profile that corresponds to the profile of the graft.

42. (PREVIOUSLY PRESENTED) The vascular device of claim 37, wherein an outer diameter of a thin-walled truncated cone is substantially smaller than an internal diameter of the vessel to guide a portion of the device into the vessel.

43. (PREVIOUSLY PRESENTED) The vascular device of claim 37, wherein an outer diameter of a thin-walled truncated cone is substantially larger than a diameter of the vessel to assure firm sealing of the vessel.

44. (CANCELLED)

45. (PREVIOUSLY PRESENTED) The vascular device of claim 37, wherein some of the plurality of barbs have a length sized to a thickness of a wall of the vessel to enable perforating internal layers of the vessel wall.

46. (PREVIOUSLY PRESENTED) The vascular device of claim 37, wherein some of the plurality of barbs are bent to establish a concave profile as compared to a radial cross-section of a thin-walled truncated cone.

47. (PREVIOUSLY PRESENTED) The vascular device of claim 37, wherein some of the plurality of barbs are bent to establish a convex profile as compared to a radial cross-section of a thin-walled truncated cone.

48. (PREVIOUSLY PRESENTED) The vascular device of claim 37, wherein a guiding end of the graft is outwardly everted over a thin-walled truncated cone.

49. (PREVIOUSLY PRESENTED) The vascular device of claim 37, wherein each docking head and the graft can each be selected according to individual vessel anatomy prior to assembly and insertion of the vascular device into the vessel.

50. (PREVIOUSLY PRESENTED) The vascular device of claim 49, wherein each docking head and the graft are separate modules.

51. (PREVIOUSLY PRESENTED) A vascular device for treatment of a vessel with an aneurysm comprising:

a bifurcated tubular stentless vascular graft having a distal portion having an outer surface with a diameter and a proximal portion having two tubular members each having an outer surface with a diameter;

a first docking head provided at the distal portion of the graft and consisting essentially of a thin-walled truncated cone having a lumen therethrough wherein

the lumen of the first docking head has a diameter that corresponds to the diameter of the outer surface of the graft; and

second and third docking heads provided at the proximal portion of the graft and each consisting essentially of a thin-walled truncated cone having a lumen therethrough wherein the lumen of each of the second and third docking heads has a diameter that corresponds to the diameter of the outer surface of a tubular member,

wherein each of the docking heads is adapted to be adjusted along and fastened to the graft at a suitable position on the outer surface of the graft prior to insertion into the vessel,

wherein each of the docking heads has a plurality of outwardly pointing barbs that are inclined at a predetermined angle,

wherein the barbs are flexible and are inclined towards a longitudinal direction of the graft, and

wherein the distal and proximal portions of the vascular device are capable of being coupled within the vessel distally and proximally, respectively, substantially to healthy portions of the aneurysm in a suture-less and rapid manner.

52. (PREVIOUSLY PRESENTED) The vascular device of claim 51, wherein at least one of the docking heads is fastened to the graft at a suitable position by a fastener selected from the group consisting of fit, glue, sutures, clips, and staples or by everting.

53. (PREVIOUSLY PRESENTED) The vascular device of claim 51, wherein each of the docking heads has an outer diameter to couple the graft to the vessel and an inner lumen that has a diameter that corresponds to an outer diameter of the graft.

54. (PREVIOUSLY PRESENTED) The vascular device of claim 51, wherein said at least a portion of each thin-walled truncated cone is provided with slits causing flexibility to at least a portion of the thin-walled truncated cone.

55. (PREVIOUSLY PRESENTED) The vascular device of claim 51, wherein each thin-walled truncated cone has a concave, convex, or straight profile that corresponds to the profile of the graft.

56. (PREVIOUSLY PRESENTED) The vascular device of claim 51, wherein an outer diameter of a thin-walled truncated cone is substantially smaller than an internal diameter of the vessel to guide a portion of the device into the vessel.

57. (PREVIOUSLY PRESENTED) The vascular device of claim 51, wherein an outer diameter of a thin-walled truncated cone is substantially larger than a diameter of the vessel to assure firm sealing of the vessel.

58. (PREVIOUSLY PRESENTED) The vascular device of claim 51, wherein the barbs are connected to a firm portion of the thin-walled truncated cone.

59. (PREVIOUSLY PRESENTED) The vascular device of claim 51, wherein some of the plurality of barbs have a length sized to a thickness of a wall of the vessel to enable perforating internal layers of the vessel wall.

60. (PREVIOUSLY PRESENTED) The vascular device of claim 51, wherein some of the plurality of barbs are bent to establish a concave profile as compared to a radial cross-section of a thin-walled truncated cone.

61. (PREVIOUSLY PRESENTED) The vascular device of claim 51, wherein some of the plurality of barbs are bent to establish a convex profile as compared to a radial cross-section of a thin-walled truncated cone.

62. (PREVIOUSLY PRESENTED) The vascular device of claim 51, wherein a thin-walled truncated cone is inwardly everted over a guiding end of the graft.

63. (PREVIOUSLY PRESENTED) The vascular device of claim 51, wherein each docking head and the graft are separate modules that can each be selected according to individual vessel anatomy prior to assembly and insertion of the vascular device into the vessel.